

What is claimed is:

1. A color cathode ray tube comprising:
a panel of which an outer surface is substantially plane and an inner
5 surface has a predetermined curvature; and
a mask for selecting colors of electron beams incident from inside of the
panel,
in which a formula, $0.3 \leq (R_{xe}/R_{xc}) \leq 0.75$ is satisfied,
wherein the R_{xe} is an inner curvature radius at an edge of a long axis of
10 the panel, and the R_{xc} is an inner curvature radius at a center of a long axis of the
panel.
2. The color cathode ray tube of claim 1, wherein the inner curvature
radius is gradually decreased from a center portion of the panel towards a
15 peripheral portion of the panel.
3. The color cathode ray tube of claim 1, wherein the mask is formed
of AK material.
- 20 4. The color cathode ray tube of claim 1, wherein a formula,
 $4.5 \leq (R_{xc}/USD) \leq 8.5$ is satisfied,
wherein the USD is a diagonal size of an effective surface of the panel.
5. The color cathode ray tube of claim 3, wherein a formula,
25 $0.3 \leq (R_{xe}/R_{xc}) \leq 0.5$ is satisfied.

6. The color cathode ray tube of claim 1, wherein a USD of the panel is 500mm or less than,

wherein the USD is a diagonal size of an effective surface of the panel.

5 7. The color cathode ray tube of claim 1, wherein a transmission ratio of a center portion of the panel is 45%~75%.

8. The color cathode ray tube of claim 1, wherein an wedge ratio is 180%~220%.

10 9. The color cathode ray tube of claim 1, wherein the mask is formed of either Fe-Ni based alloy or Fe-Ni-Co based alloy.

10. The color cathode ray tube of claim 9, wherein a formula,
15 $0.5 \leq (R_{xe}/R_{xc}) \leq 0.75$ is satisfied.

11. The color cathode ray tube of claim 9, wherein a formula,
 $4.5 \leq (R_{xc}/USD) \leq 6.5$ is satisfied,

wherein the USD is a diagonal size of an effective surface of the panel.

20 12. The color cathode ray tube of claim 9, wherein a USD of the panel is 500mm or less than,

wherein the USD is a diagonal size of an effective surface of the panel.

25 13. The color cathode ray tube of claim 9, wherein an wedge ratio is

200% or more than.

14. The color cathode ray tube of claim 1, wherein a formula, $R_{xe} \leq R_{de} \leq R_{ye}$ is satisfied,

5 wherein the R_{xe} is an inner curvature radius at an edge of a long axis of the panel, the R_{ye} is an inner curvature radius at an edge of a short axis of the panel, and the R_{de} is an inner curvature radius at an edge of a diagonal axis of the panel.

10 15. The color cathode ray tube of claim 2, wherein a formula, $R_{xe} \leq R_{de} \leq R_{ye}$ is satisfied,

15 wherein the R_{xe} is an inner curvature radius at an edge of a long axis of the panel, the R_{ye} is an inner curvature radius at an edge of a short axis of the panel, and the R_{de} is an inner curvature radius at an edge of a diagonal axis of the panel.

16. The color cathode ray tube of claim 7, wherein a formula, $R_{xe} \leq R_{de} \leq R_{ye}$ is satisfied,

20 wherein the R_{xe} is an inner curvature radius at an edge of a long axis of the panel, and the R_{de} is an inner curvature radius at an edge of a diagonal axis of the panel.

17. The color cathode ray tube of claim 1, wherein a formula, $0.3 \leq (R_{ye}/R_{yc}) \leq 0.5$ is satisfied,

25 wherein the R_{ye} is an inner curvature radius at a center of a short axis of

the panel, and the R_{yc} is an inner curvature radius at a center of a short axis of the panel.